

Notice of Allowability

Application No.

10/524,321

Examiner

Jimmy T. Nguyen

Applicant(s)

FUTAMURA ET AL.

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to change of address filed 1/9/06.
2. ☒ The allowed claim(s) is/are 1-4.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 2/9/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Lowell A. Larson
Primary Examiner

NOTICE OF ALLOWABILITY

Allowable Subject Matter

Claims 1-4 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the claim is allowed because the art of record, considered alone or in combination, neither anticipates nor renders obvious a press forming method comprising the steps of: *applying the load at each of the descending displacements and a target speed for production forming for one (hereinafter referred to as "reference drive source") of the plurality of drive sources at each of the descending displacements to a function that shows a delay of a drive source from an instructed displacement in terms of a speed of the drive source and a load working on the drive source, thereby calculating a speed (hereinafter referred to as "compensation speed") for each of the plurality of drive sources to eliminate a delay for each of the plurality of drive sources from the reference drive source; driving each of the plurality of drive sources at the compensation speed to press-form a work-piece in a trial forming; measuring a delay of each of the plurality of drive sources during the trial forming, until delays of other drive sources from the reference drive source become not more than a predetermined value, repeating correction of the compensation speed, the trial forming and the measurement of the delay during the trial forming; and when the delays of the other drive sources from the reference drive source become not more than the predetermined value, press-forming work-pieces at corrected respective speeds of the plurality of drive sources in a production forming, in combination with the rest of the claimed limitations.*

JP 2000 79500 discloses a press forming machine having a slide plate (4), linear motors (8-11); displacement measuring devices (12-15); control means (20) for controlling the driving of motor. This reference fails to teach the calculating and measuring steps as claimed in claim 1.

Further searching by the Examiner yields additional prior art as follows:

US 6,595,122 to Mukai et al. discloses a press forming machine having a slide plate (7), servo motors (11 see fig. 8); control means (222) for controlling the driving of motor; a slides displacement measuring means and reference plate (fig. 2). Mukai teaches that the correcting data be obtained from "a trial run" (col. 9, lines 36-52) and reaffirms the content and origin of the correcting data and further explains it is stored (col.9, lines 62-65).

US 4,828,474 to Ballantyne discloses the use of a "preliminary process (trial runs)" to obtain expected relative deflection data (col. 2, lines 49-51) in the art of maintaining press platen in a parallel relationship.

US 6,189,364 to Takada discloses a press forming machine having a ram (2), servo motors (11a-d); displacement measuring devices (14a-d); control means (20) for controlling the driving of motor.

US 6,810,704 to Futamura et al. discloses a press forming machine having a slide plate (40), servo motors (60a-e); displacement measuring devices (50a-j); control means (92) for controlling the driving of motor.

However, neither the prior art references of record nor any combination thereof discloses the calculating and measuring steps as claimed in claim 1. Therefore, it is concluded by the Examiner that claim 1 and its dependent claims 2-4 are allowable over the prior art of record.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

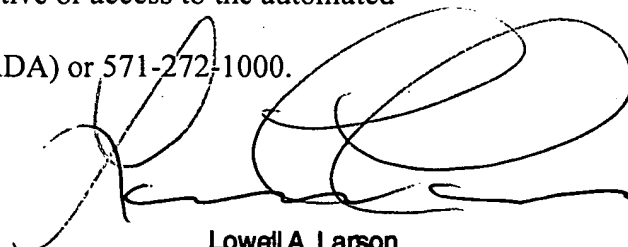
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy T. Nguyen whose telephone number is (571) 272-4520. The examiner can normally be reached on Monday-Thursday 7:30am-5:00pm with alternating Friday 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272- 4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JTNguyen
October 17, 2006



Lowell A. Larson
Primary Examiner